

*Do not enter  
1-30-06*

AMENDMENTS TO THE CLAIMS

Please amend Claims 1, 8, 15, 28, 29, and 32 as follows, without prejudice or disclaimer to continued examination on the merits:

1. (currently amended): For a wavelength division multiplexed optical network having a plurality of optical nodes coupled by spans with each optical node capable of receiving at least one optical pre-amplifier for each input fiber and at least one optical post-amplifier for each output fiber, a computer implemented method of selecting amplifier placement, the method comprising:

selecting an optical power criterion for constraining an initial placement of one or more optical amplifiers in the optical network, the optical power criterion being indicative of a sufficient minimum received power in at least one receiver;

wherein the optical power criterion constrains by one or more of a node loss algorithm wherein it is determined if a given node has an internal node loss for one or more channels that exceeds a predetermined level, a span loss algorithm wherein it is determined if a given span has an internal span loss for one or more channels that exceeds a predetermined level, the span loss algorithm taking into account the internal span loss of a given fiber and one or more transmitter/receiver to output port/input port equivalent losses at one or more end nodes of the span, an aggregate loss algorithm wherein it is determined if one or more nodes have an aggregate span and band loss for one or more channels that exceeds a predetermined level, and a sequential path search algorithm wherein the power characteristics of one or more channels are analyzed from add point to drop point;

placing at least one amplifier in accord with the optical power criterion to form the initial placement of amplifiers; and

determining a subsequent set of amplifier placement configurations which are consistent with the initial placement of amplifiers.

2. (original): The method of claim 1, wherein the optical power criterion comprises: